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PRBO Conservation Science
Guidelines for Bird Handling in Regards to Bird Diseases, With Particular Reference to Avian Influenza (H5N1)

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updated 16 November 2006
(subject to change as conditions warrant)

For more information and to provide feedback, please contact PRBO's Avian Influenza Policy Committee Coordinator, Diana Humple, at 415-868-0655, ext. 386 or dhumple@prbo.org.

1. Introduction

The purpose of this document is to inform PRBO Conservation Science staff, interns, volunteers, partners working under PRBO contracts and banding subpermittees of hygienic practices in regards to handling birds in order to prevent the spread of avian diseases to human handlers or to other birds. This document has been prepared by PRBO with particular regard to Avian Influenza H5N1 but is inclusive of other avian diseases as well. It applies to the time period when H5N1 has not yet been detected on this continent. The document also includes a separate set of recommendations for biologists collecting cloacal samples of avian influenza (likely non-H5N1), as well as the USGS preliminary recommendations (April 2006) for handling practices once H5N1 is in our area. The latter is liable to change as more is learned about the disease.

All PRBO-affiliated staff, interns, volunteers, partners working under PRBO contracts, banding subpermittees, and other persons working under PRBO's authority involved with bird handling (hereafter referred to as "PRBO bird handlers") are required to read these recommendations thoroughly. Although, as of this date, PRBO bird handlers are not required by PRBO to follow all of the following guidelines, they are strongly encouraged to do so.

PRBO may make changes to this policy at any time as conditions warrant for the health and safety of its staff, volunteers, affiliates, and the public, and to ensure compliance with any applicable state and federal regulations.

All PRBO bird handlers are required to sign a release form stating that they have read and understand these recommendations, and that they do not hold PRBO liable in the unlikely event that they acquire a zoonotic illness from wildlife. By signing the release form, each PRBO bird handler acknowledges her/his understanding that each is ultimately responsible for her/his own health, that it is her/his choice to work directly with wild birds, and under current PRBO policy, it is her/his choice to follow the recommendations that are not currently required. PRBO bird handlers will be asked to sign this waiver before May 15th, 2006 before continuing to conduct fieldwork that involves bird handling after that date.

These guidelines are largely based on two primary sources: The British Trust for Ornithology (BTO) guidelines for banders, written before H5N1 was detected in the United Kingdom, but after it had already reached Europe; and the United States Geological Survey (USGS) National Wildlife Health Center recommendations for biologists handling birds in areas where H5N1 has not been detected.

2. Background on Avian Influenza

Taken from the USGS National Wildlife Health Center Wildlife Health Bulletin #05-03 (Leslie Dierauf, Director, USGS National Wildlife Health Center):

> "To date, Highly Pathogenic Avian Influenza A H5N1 has not been detected in humans, poultry or wild birds in North America. Avian influenza, or bird flu, is a virus typically found in wild birds, especially waterfowl and shorebirds. The virus is only found in a small number of birds in the wild, and generally does not cause clinical signs of disease. The virus is shed in fecal droppings, saliva and nasal discharges. Since 2003, a particularly virulent strain of this virus has emerged in Asia —the highly pathogenic avian influenza (HPAI) H5N1 virus.
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> The HPAI H5N1 virus probably originated from domestic poultry in that region and is of concern because: 1) it poses a threat to domestic poultry, especially chickens; and 2) it has caused illness in 194 persons, including the deaths of at least 109 people [World Health Organization, April 12, 2006]. Most human cases are thought to have become infected with the virus through direct handling of infected poultry, consumption of uncooked poultry products, or contact with virus-contaminated surfaces/materials. However, to date, the risk of H5N1 transmission to people through direct contact with infected poultry remains very low. Probable, limited person-to-person transmission of H5N1 viruses in a small number of cases has been reported.
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> There are an increasing number of reports that HPAI H5N1 is infecting and causing death in wild birds, including some migratory species. These events and the associated spread of the H5N1 virus to new geographical areas in Asia have created concerns and questions about the possibility that the H5N1 virus could be carried into North America in migratory birds.

There is no known case where H5N1 has been transmitted from wild birds to humans. However, even apparently healthy wild birds can be infected with microorganisms other than HPAI, some of which are currently of more concern to human health in North America than HPAI H5N1."

3. Guidelines for PRBO Bird Handlers (pre-H5N1 Detection)

Please note that some of the following guidelines are required. These required actions are denoted with an asterisk (*) and are in bold type. In most instances, not following the required actions may affect the health of *other* personnel, the public or wildlife. Violations of required actions may result in disciplinary action up to and including termination of employment or engagement with PRBO.

Avoid Direct Contamination:

- ***Do not eat, drink, or smoke while handling animals.**

- Clean hands with a 10% household bleach solution, soap and water, or hand sanitizer (e.g., instant Purell hand sanitizer for field conditions as it can be used without water or towels and contains ethyl alcohol), especially after contact with feces or blood, and before eating or drinking. Wash hands thoroughly with soap and water after fieldwork is completed.

- If you must eat in the field, do not mix contaminated surfaces or items with food or drink.

- Avoid hand to mouth contact (e.g., biting nails, chewing pens, smoking, applying lib balm) or contact between potentially contaminated hands or gloves and any part of the face.

- Wear latex, nitrile or vinyl gloves for handling; having gloves that fit well (snugly) is important. Some biologists may have latex allergies so have alternative glove types available.

- Wear protective eyewear to protect the mucus membranes of the eyes, especially when bleeding birds or collecting other types of samples.

- Cover any cuts or abrasions on your hands during handling with a waterproof dressing and by wearing latex/vinyl/nitrile gloves. If it is not possible to cover open sores because of the extent of the sores (e.g., extensive "Farallon finger" or poison oak), do not handle birds. If a cut or abrasion occurs during handling, clean the wound immediately (with soap and water if available, or alcohol as an alternative) and cover it with a waterproof dressing. For this reason and many others, field crews should be equipped with first aid kits.

Avoid Contamination Through Inhalation:

- If blowing directly on a bird to evaluate molt, fat, or other data, do this as efficiently as possible, minimize the amount of blowing time required, and avoid breathing in after

blowing while still facing the bird (instead turn to one side to breathe in). This may allow PRBO bird handlers to reduce risk of inhaling viral pathogens in fecal material.

- PRBO bird handlers should work in well-ventilated areas. When working outdoors, try to work upwind of animals, to the extent practical, to decrease the risk of inhaling aerosols such as dust, feathers, or dander.

Clean and Set Apart Field Equipment and Clothing:

- Disinfect regularly all field equipment and work surfaces.

- Keep all field equipment in a secure location, separate from personal gear and outside of the domestic living space (e.g., processing gear, field notebooks, pens; especially any that cannot be disinfected).

- ***Launder bird bags with detergent as often as is possible.** Efforts should be made to have a large number of bird bags available in order to reduce the amount of re-use (and thus reduce bird-to-bird transmission of any disease).

- Wipe clean data sheets and field equipment that get contaminated with feces as soon as is possible.

- Clean off feces from any contaminated field clothes as soon as is possible, especially before returning to living/work space.

- Remove contaminants in the field from shoes that have been exposed to large amounts of fecal material (e.g., at a seabird or waterbird colony) by stepping into a pre-prepared tray of 10% household bleach solution before leaving the site (especially if you will not be removing your shoes at that point).

- Wash contaminated field clothes with laundry detergent as soon as is practical given water conservation and logistical constraints. If an item of clothing cannot be washed (e.g., jacket, rubber boots), wipe it down with water and detergent.

- ***Remove your field clothes before entering kitchens or other eating/food preparation areas** (at least the outer, contaminated layer).

- Do not wear field clothes (at least the outer layer) in shared living/work spaces, especially if there has been much contamination.

- Do not use your banding clothes for other activities.

- Do not mix contaminated waste (e.g., if hand wipes or tissues are used) with non-contaminated clothing or equipment, before you are able to dispose of it.

- Dispose of any waste (e.g., dirty gloves, used swabs, and used tissues) that is produced by handling and might be contaminated with fecal or other avian matter in a responsible manner such as in a securely tied trash bag. Dispose of needles for taking blood samples in a sharps container and at facilities that take medical waste.

Avoid Greater Risk Activities Unless Authorized and Trained:

- Conduct activities involving greater risk of contamination only when considered necessary for the study, with proper additional training or experience, and with authorization from your Program or Division Director (such as but not limited to cloacal inversion, diet sampling, taking blood, feather sampling, handling carcasses, and necropsies; see below for specific avian influenza sampling guidelines). Only trained biologists, generally wearing disposable gloves and safety glasses, should conduct many of these activities.

- Make available gloves and safety glasses (provided by PRBO) to allow for and encourage use by field biologists.

Handling Birds with Suspected Infections:

- If there are indications that a bird you are handling has a contagious disease (debilitated, signs of pox, sneezing, discharge around nares or beak), do what is appropriate for the specific disease. You may need to discuss with your supervisor what diseases are most likely to occur in the species and region you are working with. In all cases, carefully wash your hands after you have released the bird and, before reuse, wash any equipment that has come into contact with the bird. Be sure to describe the condition on your data sheet and report it to your supervisor.

- If you suspect you may have acquired any kind of infection or health issue related to working with birds, immediately report this to your supervisor and see a doctor.

Addressing Public Concerns:

- *__Clean and disinfect banding workstations regularly where public visitation occurs__ (e.g. Palomarin Banding Lab).

- ***Do not allow members of the public to touch live birds directly.**

- ***Do not allow the public to come into direct contact with feces from birds and/or breathe too closely to birds handled by PRBO bird handlers**; ask the public to step away if too close to the bird or handling activity.

- Present information that factually and accurately reflects the relative rarity of dangerous avian diseases. Avoid alarming visitors when discussing diseases birds can carry. Avoid speculation.

- Calmly tell visitors who have come into direct contact with feces or dander (e.g., Farallon Patrol skippers or contractors on Southeast Farallon Island) to wash clothes as soon as possible; have a tray with 10% household bleach solution available to step into before leaving the site.

- ***Do not knowingly sample for avian influenza in front of or in close proximity to the public.**

- If you are wearing personal protective equipment (PPE) such as gloves or safety glasses where there is a public presence, take the opportunity to educate them about these handling precautions, about the relative rarity of dangerous avian diseases, and do not speculate.

4. Current Protocols for Sampling for Avian Influenzas or other Cloacal Sampling

- Follow recommendations above.

- *** PRBO bird handlers may not be required to sample for avian influenzas.** Provide staff the option to sample avian influenzas as those opportunities may arise. In such cases, inform them that if they have a weakened immune system, are HIV-positive, are pregnant, or have personal, ethical or other health concerns, they do not need to participate in this activity. PRBO staff may not ask PRBO bird handlers to provide their reason for not participating.

- ***PRBO bird handlers must be appropriately trained and authorized by his/her Supervisor before embarking on any avian influenza sampling or related activity conducted under PRBO's auspices.**

- ***Authorized PRBO bird handlers collecting avian influenza samples must wear protective eyewear (safety glasses) and gloves.**

- Evaluate the potential negative effect of sampling on the birds themselves; report to your supervisor and re-evaluate if negative effects are observed.

- Take care to monitor your own health, as you should do when participating in any handling of wildlife (as described above, contact supervisor and health care provider if any symptoms appear).

- Follow good practices for disposing of waste material (e.g., used swabs, tissues, gloves, etc.). Equipment used for blood sampling should be disposed of as biomedical waste in appropriate containers. Other waste should be deposited in plastic bags, then sealed closed.

5. Current USGS Recommendations if Highly Pathogenic Avian Influenza (HPAI) is detected in North America

These recommendations are copied directly from the USGS National Wildlife Health Center (April 2006) and have not been modified by PRBO. These recommendations are likely to change as more is learned and once the virus comes to North America.

"Field Biologists working with wild birds in areas where HPAI H5N1 has been detected, particularly during disease control operations, should consult with a health care provider and follow the latest guidelines from CDC and the WHO for prophylactic medications and precautions for persons involved in avian influenza disease control:
http://www.who.int/entity/csr/disease/avian_influenza/guidelines/Avian%20Influenza.pdf
http://www.cdc.gov/flu/avian/professional/protect-guid.htm

- Follow the recommendations above and the basic guidelines for infection control, including how to put on and use, remove, disinfect or dispose of personal protective equipment and clothing.

- Wash hands frequently and disinfect exposed surfaces and field equipment between work sites.

- Do not eat, drink, or smoke while handling animals.

- Wear coveralls, gloves, shoe covers, or boots that can be disinfected or discarded, a respirator (NIOSH N95 respirator/mask is preferable; you must first be medically cleared and fit-tested to wear this) and protective eyewear (safety glasses).

- Monitor your health for clinical signs of influenza infection during and for one week after your last exposure to potentially HPAI virus-infected or exposed birds.

- Contact your healthcare provider if you develop fever, flu-like symptoms or conjunctivitis (eye inflammation). Inform them prior to arrival that you have potentially been exposed to HPAI."

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